AMENDMENTS

In the claims:

Please amend the claims as follows.

Please cancel claims 6, 34 and 47.

1. (Currently amended) A method of classifying a population by drug responsiveness, comprising:

(a) creating a ~~multidmensional~~ multidimensional space of n dimensions, wherein n represents the number of different molecules being analyzed in a specimen from each individual in a population of individuals administered a drug and wherein said multidimensional space contains n axes, each of said axes relating to the expression level of a molecule of said n molecules;

(b) determining a multidimensional coordinate point for each individual, wherein said multidimensional coordinate point is representative of the expression levels of said n molecules; and

(c) determining a drug response-associated reference expression region of a group of individuals in said population using said multidimensional coordinate points, thereby classifying said group of individuals into a drug response reference population.

2. (Original) The method of claim 1, further comprising the step of correlating said group of individuals with a response to said drug.

3. (Withdrawn) The method of claim 2, wherein said response is an adverse drug reaction.

4. (Original) The method of claim 2, wherein said response is alleviation of a sign or symptom associated with a condition of an individual administered said drug.

Claims 5-7. (Canceled)

8. (Currently amended) The method of claim [[6]] 1, ~~further comprising the step of~~ wherein the expression levels of said molecules are determined by contacting said specimen with a target.

9. (Original) The method of claim 1, wherein said specimen is selected from the group consisting of leukocytes, blood, and serum.

10. (Original) The method of claim 8, wherein said target is an array.

11. (Original) The method of claim 1, wherein said molecules in said specimen comprise nucleic acids.

12. (Original) The method of claim 8, wherein said target comprises nucleic acid ligands.

13. (Original) The method of claim 1, wherein said molecules in said specimen comprise polypeptides.

14. (Original) The method of claim 8, wherein said target comprises antibody ligands.

15. (Original) The method of claim 1, wherein said molecules in said specimen comprise small molecules.

16. (Currently amended) A method of classifying a population by drug responsiveness, comprising:

(a) creating a ~~multidmensional~~ multidimensional space of n dimensions, wherein n represents the number of different molecules being analyzed in a specimen comprising leukocytes from each individual in a population of individuals administered a drug and wherein said multidimensional space contains n axes, each of said axes relating to the expression level of a molecule of said n molecules;

(b) determining a multidimensional coordinate point for each individual, wherein said multidimensional coordinate point is representative of the expression levels of said n molecules; and

(c) determining a drug response-associated reference expression region of a group of individuals in said population using said multidimensional coordinate points, thereby classifying said group of individuals into a drug response reference population.

Claims 17 – 29. (Canceled)

30. (Currently amended) A method of categorizing drug responsiveness in a population, comprising:

(a) creating a ~~multidmensional~~ multidimensional space of n dimensions, wherein n represents the number of different molecules being analyzed in a specimen from each individual in a population of individuals treated with a drug and wherein said multidimensional space contains n axes, each of said axes relating to the expression level of a molecule of said n molecules;

(b) determining a multidimensional coordinate point for each individual, wherein said multidimensional coordinate point is representative of the expression levels of said n molecules;

(c) identifying a first group of individuals having a substantially similar response to said drug; and

(d) determining a drug response-associated reference expression region of said first group of individuals using said multidimensional coordinate points of said first group of individuals, thereby categorizing the drug responsiveness of said first group of individuals.

31. (Previously presented) The method of claim 30, further comprising the steps of:

(e) identifying a second group of individuals having a substantially similar response to said drug, said drug response in said second group being different than the drug response of said first group; and

(f) determining a drug response-associated reference expression region of said second group of individuals using said multidimensional coordinate points of said second group of individuals, thereby categorizing the drug responsiveness of said second group of individuals.

32. (Previously presented) The method of claim 31, further comprising optionally repeating steps (e) and (f) one or more times for an additional group of individuals having a substantially similar response to said drug, said drug response in said additional group of individuals being different than the drug response of identified groups.

Claims 33-35. (Canceled)

36. (Currently amended) The method of claim 30, ~~further comprising the step of~~ wherein the expression levels of said molecules are determined by contacting said specimen with a target.

37. (Original) The method of claim 30, wherein said specimen is selected from the group consisting of leukocytes, blood, and serum.

38. (Original) The method of claim 36, wherein said target is an array.

39. (Original) The method of claim 30, wherein said molecules in said specimen comprise nucleic acids.

40. (Original) The method of claim 36, wherein said target comprises nucleic acid ligands.

41. (Original) The method of claim 30, wherein said molecules in said specimen comprise polypeptides.

42. (Original) The method of claim 36, wherein said target comprises antibody ligands.

43. (Original) The method of claim 30, wherein said molecules in said specimen comprise small molecules.

44. (Previously presented) The method of claim 16, further comprising the step of correlating said group of individuals with a response to said drug.

45. (Withdrawn) The method of claim 44, wherein said response is an adverse drug reaction.

46. (Previously presented) The method of claim 44, wherein said response is alleviation of a sign or symptom associated with a condition of an individual administered said drug.

Claim 47 (Canceled).

48. (Currently amended) The method of claim [[47]] 16, ~~further comprising the step of~~ wherein the expression levels of said molecules are determined by contacting said specimen with a target.

49. (Previously presented) The method of claim 48, wherein said target is an array.

50. (Previously presented) The method of claim 16, wherein said molecules in said specimen comprise nucleic acids.

51. (Previously presented) The method of claim 48, wherein said target comprises nucleic acid ligands.

52. (Previously presented) The method of claim 16, wherein said molecules in said specimen comprise polypeptides.

53. (Previously presented) The method of claim 48, wherein said target comprises antibody ligands.

54. (Previously presented) The method of claim 16, wherein said molecules in said specimen comprise small molecules.

55. (Previously presented) The method of claim 37, wherein said specimen is leukocytes.

56. (Previously presented) The method of claim 1, wherein n is 3 or more molecules.

57. (Previously presented) The method of claim 1, wherein n is 5 or more molecules.

58. (Previously presented) The method of claim 1, wherein n is 10 or more molecules.

59. (Previously presented) The method of claim 1, wherein n is 20 or more molecules.

60. (Previously presented) The method of claim 1, wherein n is 50 or more molecules.

61. (Previously presented) The method of claim 1, wherein n is 100 or more molecules.

62. (Previously presented) The method of claim 1, wherein n is 200 or more molecules.

63. (Previously presented) The method of claim 1, wherein n is 500 or more molecules.

64. (Previously presented) The method of claim 1, wherein n is 1000 or more molecules.

65. (Previously presented) The method of claim 16, wherein n is 3 or more molecules.

66. (Previously presented) The method of claim 16, wherein n is 5 or more molecules.

67. (Previously presented) The method of claim 16, wherein n is 10 or more molecules.

68. (Previously presented) The method of claim 16, wherein n is 20 or more molecules.

69. (Previously presented) The method of claim 16, wherein n is 50 or more molecules.

70. (Previously presented) The method of claim 16, wherein n is 100 or more molecules.

71. (Previously presented) The method of claim 16, wherein n is 200 or more molecules.

72. (Previously presented) The method of claim 16, wherein n is 500 or more molecules.

73. (Previously presented) The method of claim 16, wherein n is 1000 or more molecules.

74. (Previously presented) The method of claim 30, wherein n is 3 or more molecules.

75. (Previously presented) The method of claim 30, wherein n is 5 or more molecules.

76. (Previously presented) The method of claim 30, wherein n is 10 or more molecules.

77. (Previously presented) The method of claim 30, wherein n is 20 or more molecules.

78. (Previously presented) The method of claim 30, wherein n is 50 or more molecules.

79. (Previously presented) The method of claim 30, wherein n is 100 or more molecules.

80. (Previously presented) The method of claim 30, wherein n is 200 or more molecules.

81. (Previously presented) The method of claim 30, wherein n is 500 or more molecules.

82. (Previously presented) The method of claim 30, wherein n is 1000 or more molecules.

Please add the following new claim.

83. (New) The method of claim 9, wherein said specimen is leukocytes.